ABSTRACT

[37]   A high-performance, low-latency data retrieval system is disclosed using hash functions. Given a set of input data, the data retrieval system may generate one or more index values and a signature value according to a predetermined hash function. The index values may be applied to respective data arrays to access a data unit therein. The data unit may include signatures previously developed when populating the array. If a signature from the data unit matches the signature generated from the hash function, then the associated index may be applied to a second portion of the respective data array to retrieve requested data.